

In The Claims:

Claims 1 and 41, amend to read as follows

1. (Twice Amended) A method for pathogen detection composed of sequential operations comprising:

containing optically encoded microbeads,  
adding a sample and capture ligand to the contained microbeads,  
placing the contained microbeads in a mixing holder for sufficient time for a targeted biological sample to adequately bind the microbeads,  
adding fluorescent labeled antibodies for attachment to the microbead bound sample,  
attaching the microbeads to a disposable capture substrate containing an array of attachment sites for attaching the microbeads thereto,  
washing the substrate and attached microbeads, and  
inserting the substrate into an optical detection system for optically decoding the microbeads for identification and measurement of the target biological sample.

41. (Amended) A method for pathogen detection composed of sequential operations comprising:

containing a quantity of microbeads,  
adding a sample and capture legend to the contained microbeads,  
adding fluorescent labeled antibodies for attachment to a microbead bound sample,  
providing a disposable capture substrate containing an array of attachment sites for attaching the microbeads thereto,

inserting the disposable capture substrate containing the array of attachment sites into the contained microbeads for capturing the microbeads, and

inserting the disposable capture substrate into a detection system for decoding the microbeads for identification and measurement of biological molecules attached to the microbeads.

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